

Please type a plus sign (+) inside this box ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

SHEET

1

OF

7

Complete if Known

Application Number: 09/995,894

Filing Date: 11/28/01

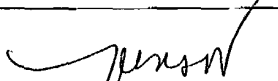
First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

Examiner Initials	U.S. Documents Number	U.S. Patent Document Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
P7D	US 4,717,655	Fulwyler	01/05/1988
	US 5,573,909	Singer et. Al	11/12/1996
	US 5,585,069	Zanzucchi et al.	12/17/1996
	US 5,593,838	Zanzucchi et al.	01/14/1997
	US 5,723,218	Haugland et al.	03/03/1998
	US 5,744,305	Fodor et al.	04/28/1998
	US 5,807,755	Ekins	09/15/1998
	US 5,837,551	Ekins	11/17/1998
	US 5,874,219	Rava et al.	02/23/1999
	US 5,989,835	Dunlay et al.	11/23/1999
	US 6,023,540	Wait et al.	02/08/2000
	US 5,281,370	Asher et al.	01/25/1994
	US 5,516,635	Ekins et al.	05/15/1996
	US 5,518,883	Soini	05/21/1996
	US 5,415,835	Brueck	05/16/1995
	US 5,604,097	Brenner	02/18/1997
	US 5,800,992	Fodor	09/01/1998
	US 6,023,540	Walt et al.	02/08/2000
	US 6,327,410	Walt et al.	12/04/2001
	US 6,266,459	Walt et al.	07/24/2001
	US 6,429,027	Chee et al.	08/06/2002
	US 5,747,349	Van den Engh et al.	05/05/1998
	US 5,900,481	Lough et al.	05/04/1999
	US 6,133,436	Koster et al.	10/17/2000
	US 6,084,991	Sampas	07/04/2000
P7D	US 5,422,246	Koopal et al.	06/06/1995

Examiner Signature		Date Considered	12/09/04
-----------------------	---	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

SHEET 2 OF 7**Complete if Known**

Application Number: 09/995,894

Filing Date: 10/17/2000

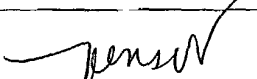
First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

Examiner Initials	U.S. Documents	U.S. Patent Document Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
	Number		
PTD	US 5,770,358	Dower	07/23/1998
	US 3,571,614 A	Carreira	04/13/1997
	US 5,510,270 A	Fodor et al.	04/23/1996
	US 6,083,763	Balch	07/04/2000
	US 6,172,218 B1	Brenner	01/09/2001
	US 5,415,835	Brueck et al.	05/16/1995
	US 6,429,027 B1	Chee et al.	08/06/2002
	US 5,532,128	Eggers et al.	07/02/1996
	US 5,516,635	Ekins et al.	05/14/1996
	US 5,961,923	Nova et al.	10/05/1999
	US 4,499,052	Fulwyler	02/12/1985
	US 4,647,544	Nicoli et al.	06/25/1985
	US 4,822,746	Wall	06/25/1986
	US 4,994,373	Stavrianopoulos et al.	07/20/1989
	US 5,002,867	Macevicz	03/26/1991
	US 5,028,545	Soini	07/02/1991
	US 5,105,305	Betzig	04/14/1992
	US 5,114,864	Walt	05/19/1992
	US 5,132,242	Cheung	07/21/1992
	US 5,132,097	Van Deusen	07/21/1992
	US 5,143,853	Walt	09/01/1992
	US 5,194,300	Cheung	03/16/1993
	US 5,244,813	Walt et al.	09/14/1993
	US 5,244,636	Walt et al.	09/14/1993
	US 5,250,264	Walt et al.	10/05/1993
	US 5,252,494	Walt	10/12/1993
	US 5,254,477	Walt	10/19/1993
PTD	US 5,298,741	Walt et al.	03/29/1994

Examiner Signature		Date Considered	12/09/04
-----------------------	---	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

SHEET

3

OF

7

Complete if Known

Application Number: 09/995,894

Filing Date: 11/28/01

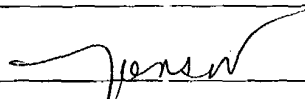
First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

Examiner Initials	U.S. Documents Number	U.S. Patent Document Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
PTD	US 5,306,618	Prober et al.	04/26/1994
	US 5,320,814	Walt et al.	06/14/1994
	US 5,362,653	Carr et al.	11/08/1994
	US 5,405,784	Van Hoegaerden	04/11/1995
	US 5,480,723	Klainer et al.	01/02/1996
	US 5,814,524	Walt et al.	09/29/1998
	US 5,496,997	Pope	03/05/1996
	US 5,512,490	Walt et al.	04/30/1996
	US 5,565,324	Still et al.	10/15/1996
	US 5,567,627	Lehnén	10/22/1996
	US 5,633,724	King et al.	05/27/1997
	US 5,633,972	Walt et al.	05/27/1997
	US 5,650,488	Lam et al.	07/22/1997
	US 5,652,059	Margel	07/29/1997
	US 5,674,698	Zarling et al.	10/07/1997
	US 5,690,894	Pinkel et al.	11/25/1997
	US 5,700,897	Klainer et al.	12/23/1997
	US 5,779,976	Leland et al.	07/14/1998
	US 5,939,021	Hansen et al.	08/17/1999
	US 5,961,923	Nova et al.	10/05/1999
	US 5,965,452	Kovacs	10/12/1999
	US 6,048,690	Heller et al.	04/11/2000
	US 6,090,545	Wohlstadter et al.	07/18/2000
	US 6,090,912	Lebl et al.	07/18/2000
	US 6,200,737	Walt et al.	03/13/2001
	US 3,998,525	Giglia	12/21/1976
	US 4,075,013	Ward et al.	02/21/1978
	US 4,456,513	Kawal et al.	06/26/1984
PTD	US 4,575,407	Diller	03/11/1986

Examiner
SignatureDate
Considered

12/09/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

SHEET

4

OF

7

Complete if Known

Application Number: 09/995,894

Filing Date: 11/28/01

First Named Inventor: M. Seul, et al.

Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

Examiner Initials	U.S. Documents		U.S. Patent Document Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
	Number			
PST	US 4,591,550		Hafeman et al.	05/27/1986
	US 5,444,330		Leventis et al.	08/22/1995
	US 5,587,128		Wilding et al.	12/24/1996
	US 5,498,392		Wilding et al.	03/12/1996
	US 5,855,753		Trau et al.	01/05/1999
	US 6,033,547		Trau et al.	03/07/2000
	US 6,083,763		Balch	07/04/2000
	US 6,172,218 B1		Brenner	01/09/2001
	US 5,415,835		Brueck et al.	05/16/1995
	US 6,429,027 B1		Chee et al.	08/06/2002
	US 5,532,128		Eggers et al.	07/02/1996
	US 5,516,635		Ekins et al.	05/14/1996
	US 5,961,923		Nova et al.	10/05/1999
	US 5,770,358		Dower	07/23/1998
	US 5,128,006		Mitchell et al.	07/07/1992
	PST	US 6,251,691		Seul

FOREIGN DOCUMENTS

Examiner Initials	Foreign Patent Documents			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation
	Office	Number	Kind Code (if known)			
PST	PCT	WO 95 12803		Heller et al.	05/11/1995	I
	PCT	WO 96 07917		Nanogen	03/14/1996	
	PCT	WO 97 40383		Glaxo Group	10/30/1997	
	PCT	WO 98 06007		McCardle	02/12/1998	
	PCT	WO 98 53300		Pallas et al.	11/26/1998	
	PCT	WO 93/02369		Lehnen	02/40/1993	
PST	PCT	WO 96/03212		Brenner	02/08/1996	

Examiner
SignatureDate
Considered

12/09/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

SHEET 5 OF 7**Complete if Known**

Application Number: 09/995,894

Filing Date: 11/28/01

First Named Inventor: M. Seul, et al.

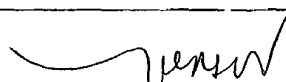
Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

FOREIGN DOCUMENTS

Examiner Initials	Foreign Patent Documents		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation
	Office	Number Kind Code (if known)			
[Signature]	Can.	1,248,873	Tripatzis	01/17/1989	
	PCT	WO 99/18434	Walt et al.	04/15/1999	
	PCT	WO 99/19519	Luminex Corp	04/22/1999	
	PCT	WO 91/19023 A	Savin, Corp	12/12/1991	
	EP	EP 0 269 764	Heller	06/08/1988	
	EP	EP 0 478 319	Hashimoto et al.	04/01/1992	
	EP	EP 0 723 146	SRI International	07/24/1996	
	PCT	WO 89/11103	Lindmo	11/16/1989	
	PCT	WO 93/06121	Dower et al.	04/01/1993	
	PCT	WO 93/24517	Furka et al.	12/09/1993	
	PCT	WO 97/14023	Chandler et al.	04/17/1997	
	PCT	WO 96/04547	Ramsey	02/15/1996	
	PCT	WO 00/04372	Anslyn et al.	01/27/2000	
	PCT	WO 99/60170	Baier et al.	11/25/1999	
	PCT	WO 98/40725	Walt et al.	02/08/2000	
	PCT	WO 00/13004	Walt	03/09/2000	
	GB	GB 2 058 379 A	AGFA Gevaert	04/08/1981	
	PCT	WO 00/75373	Walt et al.	12/14/2000	

Examiner Signature		Date Considered	12/09/04
-----------------------	---	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

SHEET 6 OF 7**Complete If Known**

Application Number: 09/995,894

Filing Date: 11/28/01

First Named Inventor: M. Seul, et al.

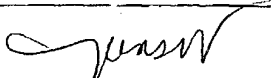
Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).	T 2
PSO		Micheletto, et al. "A simple method for the production of a two-dimensional ordered array of small latex particles". <i>Langmuir</i> , vol. 11, 3333-3336 (1995)	
		Nagamaya et al. "Fabrication of two-dimensional colloidal arrays". <i>Phase Transitions</i> , vol. 45, 185-203 (1993)	
		Yeh, S.R., et al. "Assembly of ordered colloidal aggregates by electric-field-induced fluid flow". <i>Nature</i> , Mar. 6, 1997: 57-59. Vol. 386, No. 6620.	
		"Materials from Freedom of Information Act pertaining to David R. Walt".	
		Peterson, et al. "Fiber optic pH probe for physiological use," <i>Anal. Chem.</i> Vol. 52, 864-869 (1980)	
		Peterson, et al, "Fiber optic sensors for biomedical applications," <i>Science</i> , 13: 123-127 (1984)	
		Fuh, et al, "Single Fibre Optic Fluorescence pH probe," <i>Analyst</i> , 112: 1159-1163 (1987).	
		Barnard, et al, "A fibre-optic chemical sensor with discrete sensing sites," <i>Nature</i> , vol. 353: 338-340 (1991).	
		Campaign, et al. "Colored and fluorescent solid supports," <i>Innovation and Perspectives in Solid-Phase Synthesis</i> . Ed: E. Birmingham (Mayflower, London), pp. 469-472 (1994).	
		Pope, "Fiber optic chemical microsensors employing optically active silica microspheres," <i>SPIE</i> , vol. 2388: 245-256 (1995).	
		Grazia, et al., "In-vivo biomedical monitoring by Fiber-Optic system," <i>Journal of Lightwave Technology</i> , 13, 1396-1406 (1995).	
		Bangs, "Immunological applications of microspheres," <i>The Latex Course</i> , Bangs Laboratories (April 1996)	
		"Flourescent Microspheres (Tech. Note #19)," Bangs Laboratories (1997)	
		Egner, et al., "Tagging in combinatorial chemistry: the use of coloured and fluorescent beads," <i>Chem. Commun.</i> pp. 735-736 (1997)	
		Fulton, et al., "Advanced multiplexed analysis with the FlowMatrix system," <i>Clinical Chemistry</i> , vol. 43:9, pp. 1749-1756 (1997)	
		Scott, et al. "Properties of flourophores on solid phase resins; implications for screening, encoding and reaction monitoring," <i>Bioorganic & Medicinal Chemistry Letters</i> , 7:12, pp. 1567-1572 (1997)	
PSO		Healey, et al., "Fiberoptic DNA sensor array capable of detecting point mutations," <i>Analytical Biochemistry</i> , vol. 251, pp. 270-279 (1997).	

Examiner Signature		Date Considered	12/09/04
-----------------------	---	--------------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

SHEET OF **Complete if Known**

Application Number: 09/995,894

Filing Date: 11/28/01

First Named Inventor: M. Seul, et al.

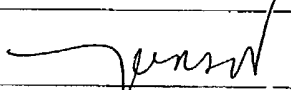
Group Art Unit: 1641

Examiner Name:

Attorney Docket Number: ARCY-C1

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s),	T 2
PTO		"Microsphere Selection Guide," Bangs Laboratories, Inc. (Fisher, IN) (September 1998)	
		Giersig, et al., "Formation of ordered two-dimensional gold colloid lattices by electrophoretic deposition," Journal of Physical Chemistry, vol. 97: 6334-6336	
		Seul, et al., "Scale transformation of magnetic bubble arrays: coupling of topological disorder and polydispersity," Science, vol. 262: 558-560 (1993).	
		Trau, et al., "Field-induced layering of colloidal crystals," Science, vol. 272: 706-709 (1996).	
		Seul, et al., "Domain shapes and patterns: the phenomenology of modulated phases," Science, vol. 267: 476-483 (1995)	
		Schena, et al., "Quantitative monitoring of gene expression patterns with a complimentary DNA microarray," Science, Vol. 270: 467-470 (1995)	
		Haab, et al. "Single molecule fluorescence burst detection of DNA fragments separated by capillary electrophoresis," Analytical Chemistry, vol. 67 (No. 18): 3253-3256 (1995)	
		Richetti, et al. "Two-dimensional aggregations and crystallization of a colloidal suspension of latex spheres," J. Physique Lettr., Vol. 45: L-1137 – L-1143 (1984)	
		Sze, "MIS diode and charge-coupled device," The physics of semiconductors, Chapter 7, pp. 362-340 (2 nd edition) (Wiley Interscience 1981).	
		The International Preliminary Examination Report dated April 27, 1998, received in the corresponding international application	
PTO		Handbook of Chemistry and Physics, 64 th edition, 183-184, pages B-196 and E-363	

Examiner Signature		Date Considered	12/09/04
--------------------	---	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.